**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings, of claims in this application:

**Listing of Claims:**

Claims 1-49. (Canceled)

50. (Currently Amended) An internal combustion engine comprising:

a housing forming a compartment with opposed cylinders at opposite ends of the compartment;

a slide body reciprocal in the housing compartment, the slide body having pistons at opposite ends of the slide body, individual pistons being received within individual cylinders, at least two side by side pistons being located on at least one end of the slide body, wherein the slide body and the pistons comprise a one-piece rigid body, cyclical combustion within the cylinders imparting linear reciprocal motion to the slide body, bearing surfaces between a central portion of the slide body and the housing extending linearly so that the pistons reciprocate linearly within the cylinders;

a rotating disk positioned in the housing compartment, the rotating disk being located adjacent to the slide body and being rotatable about an axis generally perpendicular to linear reciprocal movement of the slide body, ~~wherein the slide body and the pistons comprise a one-piece rigid body~~;

interengaging members on the slide body and rotating disk sufficiently laterally offset from the axis of rotation of the rotating disk to impart rotary motion to the rotating disk as the slide body linearly reciprocates within the housing compartment: and

a drive shaft extending through the housing, rotation of the rotating disk being transmitted to the drive shaft so that linear motion of the slide piston is transmitted through the rotating disk to the drive shaft for delivering external power.

51. (Previously Presented) The internal combustion engine of claim 50 wherein the rotating disk comprises a flywheel.

52. (Currently Amended) The internal combustion engine of ~~claims~~ claim 50 wherein the housing compartment is formed by;

an upper cover and a separate lower cover;

side plates attachable to and detachable from the upper cover and the lower cover adjacent opposite edges thereof to form a central housing subassembly having a generally rectangular cross section;

a cylinder body attached to and detachable from one end of the central housing subassembly, the cylinder body including cylinders receiving the reciprocal pistons,

a head attachable to and detachable from the cylinder body and enclosing one end of the cylinders;

valves mounted on the head; and

valve actuation means;

whereby the internal combustion engine can be assembled and disassembled by respectively attaching and detaching the housing components in surrounding relationship to the reciprocal pistons and the rotary member.

53. (Previously Presented) The internal combustion engine of claim 52 wherein the reciprocal pistons are fixed to a slide body, the pistons and the slide body moving only linearly, without rotary motion relative to the cylinders.

54. (Previously Presented) The internal combustion engine of claim 52 wherein coolant is circulated through the side plates and around the cylinder body and head.

55. (Previously Presented) The internal combustion engine of claim 52 wherein oil is dispersed in an internal compartment bounded by the upper cover, the lower cover and the side plates.

56. (Previously Presented) The internal combustion engine of claim 50 wherein the rotating disk comprises a flywheel having an axis of rotation substantially perpendicular to the direction in which the pistons move, wherein the flywheel is located in a plane parallel to and adjacent to a central portion of the slide body, the pistons extending in opposite directions from the one-piece member, the flywheel having sufficient angular momentum to dampen reaction forces acting in a direction opposite from the direction of movement of the pistons during sequential strokes due to the expansion of a combustible fuel-air mixture sequentially acting on individual pistons so that the internal combustion engine can be employed in a mobile vehicle.

57. (Previously Presented) The internal combustion engine of claim 50 wherein the rotating disk includes a first electromagnetic field component, the engine also including a second stationary electromagnetic field component so that electrical energy can be generated by relative rotation of the first electromagnetic field component relative to the second electromagnetic field component, wherein the first

electromagnetic field component is coupled to a drive shaft so that the first and second electromagnetic field components can also function as an electric motor.

58. (Currently Amended) An engine including a gear bearing assembly for use between a powered first member reciprocal linearly relative to and adjacent to a stationary second member, the gear bearing assembly comprising:

a plurality of one piece gear bearings, each gear bearing having an upper and a lower conical surface, with a series of gear teeth circumferentially disposed between the upper and lower conical surfaces;

linear gears oppositely disposed on the first and second members, the gear teeth on each gear bearing engaging the linear gears: and

inclined surfaces extending above and below the linear gears, the conical surfaces on the gear bearings being juxtaposed to the inclined surfaces as the gear bearings rotate relative to the first and second members;

wherein the gear bearings remain spaced by a substantially constant distance as the first member reciprocates linearly relative to the second member to counteract bureau drawer effects between the first and second members.

59. (Previously Presented) The engine of claim 58 wherein the gear bearing conical surfaces are spaced from the inclined surfaces by a lubricating material during operation of the gear bearing assembly.

60. (Previously Presented) The internal combustion engine of claim 50 comprising a four stroke internal combustion engine wherein the pistons are movable in opposite directions on each successive stroke, and the slide body includes an even number of at least six pistons, with an equal number of pistons on opposite ends of the slide body and with pistons on opposite ends of the slide body facing in opposite directions, combustion occurring in a sequence such that the resultant force acting on pistons during each stroke is parallel to the direction of movement of the piston subassembly such that the piston subassembly does not bind during any stroke due to the absence of any resultant rotary movement of the piston subassembly.

61. (Previously Presented) The internal combustion engine of claim 60 in which combustion simultaneously energizes at least two pistons on the same end of the slide body at the beginning of at least one stroke.

62. (Previously Presented) The internal combustion engine of claim 60 wherein the slide body includes six pistons, single pistons centrally positioned on opposite ends of

the slide body having a outer diameter larger than the outer diameter of pistons above and below the centrally positioned pistons.

63. (Currently Amended) An engine including a valve actuation mechanism, the engine comprising:

reciprocal pistons facing in opposite directions and movable linearly in unison, and a valve actuation mechanism shifting lineraly reciprocal valves, the valve actuation mechanism further comprising;

rotating gears including protruding cam surfaces on the gears positioned to open and close the valves as the gears rotate;

a valve cam shaft extending parallel to the linear movement of the pistons and rotating in response to movement of the linearly reciprocal pistons;

a drive gear on the valve cam shaft engaging the rotating gears to cause the protruding cam surface to open and close the valves as the valve cam shaft rotates during cyclical movement of the pistons.

64. (Previously Presented) The engine of claim 63 wherein the valve cam shaft includes a peripheral groove engagable with a protrusion extending transversely relative to the direction in which the pistons move, the protrusion moving along the groove during cyclical movement of the pistons.

65. (Previously Presented) The engine of claim 63 wherein the cam surfaces are located on interior faces of the rotating gears.

66. (Previously Presented) , The engine of claim 63 wherein a secondary shaft extends parallel to the valve cam shaft, each shaft including a peripheral groove, the peripheral groove in the valve cam shaft extending around the valve cam shaft and the peripheral groove in the secondary shaft extending only partially around the secondary shaft, with two side by side protrusions extending transverse to the pistons engaging respective peripheral grooves, the secondary shaft engaging the valve cam shaft as the direction of relative movement of the protrusions relative to the valve cam shaft changes resulting in constant rotation of the valve cam shaft.

67. (Previously Presented) The engine of claim 63 wherein a bevel gear is mounted on the valve cam shaft, the bevel gear engaging a drive bevel gear rotating in response to linear movement of the pistons.

68. (Previously Presented) The engine of claim 63 wherein opposed bevel gears are spaced apart on the valve cam shaft, the opposed bevel gears engaging a drive bevel gear positioned therebetween and rotating in opposite directions in response to linear

movement of the pistons, each opposed bevel gear being mounted on clutch bearings so that the drive bevel gear can impart rotation to the valve cam shaft in only a single direction.

69. (Previously Presented) The engine of claim 63 wherein each rotating gear can be separately removed from the valve cam shaft for repair, alignment or replacement.

70. (New) An internal combustion engine comprising:

a housing forming a compartment with opposed cylinders at opposite ends of the compartment;

a slide body reciprocal in the housing compartment, the slide body having pistons at opposite ends of the slide body, individual pistons being received within individual cylinders, cyclical combustion within the cylinders imparting linear reciprocal motion to the slide body;

a rotating member positioned in the housing compartment, the rotating member being located adjacent to the slide body and being rotatable about an axis generally perpendicular to linear reciprocal movement of the slide body;

interengaging members on the slide body and rotating member sufficiently laterally offset from the axis of rotation of the rotating member to impart rotary motion to the rotating member as the slide body linearly reciprocates within the housing compartment: and

a drive shaft extending through the housing, rotation of the rotating member being transmitted to the drive shaft so that linear motion of the slide piston is transmitted through the rotating member to the drive shaft for delivering external power;

wherein the engine includes a first electromagnetic field component rotatable in response to linear movement of the slide body, the engine also including a second stationary electromagnetic field component so that electrical energy can be generated by relative rotation of the first electromagnetic field component relative to the second electromagnetic field component, wherein the first electromagnetic field component is coupled to a drive shaft so that the first and second electromagnetic field components can also function as an electric motor.